



# STATE OF MONTANA DEPARTMENT OF REVENUE JOB PROFILE

**Working Title**

GIS Analyst

**Job Code Title**

Data Control Specialist

**Pay Band**

05

**Job Code Number**

151915

**Property Assessment Division**

Regional Offices

**Fair Labor Standards Act**

Non-Exempt

The Montana Department of Revenue administers more than 30 state taxes and fees; establishes values for taxable property, including agricultural land, residential real estate, commercial real estate, forest land, business equipment, railroads and public utilities; supervises the operation of the state agency liquor stores and administers the laws governing the sale, taxation, and licensing of alcoholic beverages and tobacco products; returns unclaimed property to its rightful owners; and determines how state taxes and liquor and tobacco laws apply to Indian Tribes and tribal members in Indian Country.

The Property Assessment Division is responsible for administering Montana's property tax laws, including the valuation and assessment of real and personal property throughout the state for property tax purposes. The division is responsible for ensuring that all classes of property in the state are valued uniformly and equally throughout the state. The work of the division is critical to the operation of local governments, since the resulting valuation is used annually to fund important services provided by local government, including public schools, law enforcement, fire protection, road and bridge construction and maintenance, transportation, weed control, and public assistance. The functions of the division are performed by staff statewide in four regions with offices in each of the 56 counties and the Management Analysis Bureau and the Management, Analysis, and Support Office located in Helena.

**Job Responsibilities**

The Geographic Information System (GIS) Analyst is responsible for maintaining and enhancing the cadastral mapping system and GIS-related data and applications for use in ownership determination, parcel identification, valuation and assessment, and assessment processes and providing technical support to users in the use of GIS applications and data. The position reports to the Area Manager for the county in which the position is located; the Management, Analysis, and Support Office GIS Analyst reports to the Deputy Division Administrator.

- **Construction, Maintenance, and Application of Geospatial Data and Information 60%**
  1. Develops and documents the functional requirements of applications to determine their scope and functionality. Interviews key personnel and researches technical documentation. Documents informational and functional requirements to use cadastral and the department's automated property valuation system (ORION) data in the GIS environment. Provides technical data to the Senior GIS Analysts to assist in the design of software applications.
  2. Improves the efficiency of GIS applications by developing routines to automate cadastral maintenance and creating GIS desktop applications. Develops new programs in Visual Basic (VB) and Visual Basic Web applications (VB DOT NET) to run primarily in the ARC GIS and Microsoft applications (MS Access and Excel) environment. Develops and maintains code for customized GIS programs within established timeframes.

3. Analyzes databases to construct special program applications for use by department staff for spatial analysis purposes. Develops queries for applications. Develops prototypes, simulations, and models that demonstrate what an application will look like.
  4. Performs basic data structure design and application coding under the direction of the Senior GIS Analysts. Utilizes functional specifications, hardware and software facility knowledge, and general problem-solving skills to develop data structure design, system flow, program specifications, and customized code.
  5. Tests, demonstrates, and develops prototypes for each application developed. Tests GIS applications to ensure that specifications are met and to identify and resolve errors in logic. Responds to reports of problems encountered by users and makes necessary changes to ensure systems function as anticipated.
  6. Develops procedures and user documentation for developed applications. Provides information and data related to system functions, user interfaces, and business processes, including detailed procedures, screen snapshots, database models and related diagrams, and other system specifications.
  7. Performs analysis and quality control of GIS data to ensure the integrity of data sets. Analyzes and editing topology (data geometry) to ensure the GIS data is consistent and relevant to the desired analysis. Ensures the accuracy of geographic and attribute information in department databases. Corrects and updates data as required. Performs statewide or region-wide quality assurance review to ensure consistency and adherence to established standards.
  8. Manages and maintains GIS and cartographic databases to ensure the integrity and accessibility of data and to import data into a functional system for department users and customers. Defines system outputs including on-line reports and maps. Integrates end-user outputs and application parameters. Coordinates with Information Technology staff in the design and modification of databases. Writes queries and routines. Diagnoses problems and resolves issues unique to GIS and cartographic production.
  9. Develops new GIS mapping solutions including interfaces between internal systems, templates, and automation scripts using specialized GIS software, mapping resources, and department and external databases. Provides technical assistance and support to staff in geographic databases and data analysis using aerial photographs, digital images, and geographic characteristics including using automated image recognition and determining optimal resolution and scanning images.
- **Technical Support 35%**
    1. Provides technical support to users in the use of GIS applications and data including developing specialized data extracts, analyses, and troubleshooting and resolving or coordinating the resolution of system problems.
    2. Develops knowledge and understanding of the information processing and spatial analysis needs of the division. Interviews agency personnel at all levels. Researches written procedures, policies, and statutes. Evaluate existing data systems and applications.
    3. Provides GIS technical and processing support to cadastral data, applications, and work processes. Works with complex ORION and parcel mapping conversion processes between multi-jurisdictional entities using GIS applications. Determines appropriate computer languages, algorithms, and structure for spatial and attribute data conversions. Assists cartographers and local governments with technical and interpretive data using GIS applications.
    4. Participates as member of the GIS team to share resources, maintain standards and consistency, and determine future direction of GIS data and applications. Provides information regarding activities that have been successful and unsuccessful. Analyzes and prepares information for use in developing plans. Presents various data. Provides recommendations to more effectively utilize GIS capabilities.
    5. Troubleshoots problems and issues for department GIS applications. Refers problems to the Senior GIS Analysts or resolves problems using knowledge of GIS technology, computer operating systems and diagnostic tools in a variety of situations. Provides application support during non-business hours or on-call support as needed.

- **Other Duties 5%**

1. Performs a variety of other technical and professional functions in support of the division.
2. Coordinates and participates in special projects and events.
3. Attends training and continuing education as required.

### **Job Requirements**

To perform successfully as a cartographer the incumbent must be self-motivated; possess a strong work ethic; maintain a positive attitude; and enjoy working with, and for, the public. It is essential that incumbent has deductive and inductive reasoning abilities to solve complex problems. Skills in the analysis of spatial data; collecting geographic or physical data; preparing technical reports; reading and interpreting technical maps and drawings; interpreting aerial maps; analyzing technical and legal documents; researching and synthesizing data from multiple sources; resolving conflict situations with taxpayers and others; multi-tasking; paying attention to details and accuracy; managing multiple priorities under tight deadlines; providing timely and effective written, verbal, and interpersonal communication; customer service; following written and oral directions and instructions; and word processing, spreadsheet and database applications are required. Incumbent is required to resolve problems and accept responsibility for decisions. This position may work with confidential financial and tax information and is required to maintain the highest level of confidentiality regarding all information acquired or used in performing this job.

This position requires knowledge of cadastral mapping; GIS software and databases and related data file formats; individual county database systems; mathematics including algebra, geometry, and trigonometry; deeds and legal descriptions; right-of-way information; data sources such as aerial maps; land information sources such as Government Land Office (GLO), Bureau of Land Management (BLM), US Public Land Survey System, and private surveys; aerial photography; the cartographic process; and the application of federal/state statutes, administrative rules, and state policies and procedures.

- The minimum level of education and job-related work experience needed as a new employee **on the first day** of work is a Bachelor's degree in cartography, geography, computer science, drafting, GIS, mathematics, or closely related field and one year of job-related experience using GIS software applications and programs.
  - Other combinations of education and experience will be evaluated on an individual basis.

### **Department Core Values**

- **Respect**: As a representative of the people of Montana, proceeds with the highest level of respect for the dignity of every person contacted through work. Without exception, all people are treated as equally as possible. The employee is a faithful steward of the resources provided to this agency by the citizens of Montana.
- **Integrity**: Conducts work honestly and makes decisions that establish a clear record that the department serves the public with integrity. Apologizes for mistakes and gives credit to others for their cooperation, work, and ideas in achieving positive results. Accountable for their actions and holds others accountable for theirs. Decisions and judgments achieve equity and justice for all parties involved including citizens and co-workers.
- **Productivity**: Consistently strives to minimize the waste of the department's financial, facilities, and human resources. Diligently works to improve the productivity and effectiveness of the work unit. Welcomes and encourages new ideas on improving the results of the department from the public, other officials, colleagues, and supervisors. Approaches work in a manner that builds goodwill, trust, and cooperation internally with other staff and externally with the public.
- **Teamwork**: Maximizes cooperation and teamwork when working with other employees, divisions, and other state agencies. Willing to work with others for the opportunity to learn from their ideas, talents, and knowledge. Seeks to resolve conflicts with other employees and work units in an open and respectful manner that reinforces teamwork. Celebrates the successes of others.

**Working Conditions**

Must work under time constraints, be able to maintain numerous projects at one time, and determine priorities on a daily basis. At times, the incumbent will deal with angry, hostile, and difficult individuals to resolve concerns or to bring about compliance with regulations. This may cause stressful work conditions and a high degree of mental stress. As a Department of Revenue employee, the incumbent may come into contact with highly confidential financial and tax information and is required to maintain the highest level of confidentiality regarding all information acquired or used in performing this job. This position requires considerable computer and keyboard use. Work hours may exceed 40 hours per week from time to time. May involve minimal travel therefore a valid Montana driver's license is required. Lifting is infrequent, less than 15 pounds and includes carrying light items such as papers and books. This job requires regular attendance as scheduled by the supervisor. This job cannot be performed at an alternate work site.

**Special requirements**

- Background Examination: Applicants for this position will be subject to a criminal background review before being considered for employment. Individual circumstances involving a criminal conviction will be reviewed to determine an applicant's eligibility for employment.
- Compliance with All Appropriate Montana Tax Laws: An employee's tax status must be current.

**This job profile was produced by the Office of Human Resources in conjunction with the appropriate managers.**

**Division Administrator Review:** The statements in this job profile are accurate and complete.

Signature: Cynthia Monteau Moore, Division Administrator Date: May 2011

**Human Resource Director Review:** The Office of Human Resources has reviewed this job profile.

Signature: JeanAnn Scheuer, Human Resources Director Date: May 2011

**Employee:** My signature below indicates I have read this job profile and discussed it with my supervisor.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name (print): \_\_\_\_\_